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THE MANUFACTURE AND SALE OF FARM EQUIPMENT IN 1920

A SUMMARY OF REPORTS FROM 583 MANUFACTURERS

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MANUFACTURE AND SALE OF FARM EQUIPMENT IN 1920.

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SUMMARY.

IN ORDER to obtain definite information concerning the number and value of tractors, farm implements, vehicles, and other selected items of farm operating equipment manufactured annually in the United States, the extent to which farmers were purchasing different sizes and types of implements and equipment, and the kinds and amount exported from the United States, the Division of Agricultural Engineering of the Bureau of Public Roads has summarized the activities of 583 manufacturers for the year 1920.

This circular contains figures concerning gas tractors, steam traction engines, plows and listers, tillage implements, planting machinery cultivating machinery, haying machinery, harvesting machinery, machines for preparing crops for market or use, horse-drawn vehicles, and a number of other selected items of farm equipment. Table 1 summarizes the manufacture and sale of each of these classes of farm equipment.

TABLE 1.—*Summary of manufacture and sale of farm equipment in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Tractors	90	203,207	$193,563,000	162,988	$161,896,000	29,143	$30,850,000
Steam traction engines	15	1,766	4,661,000	1,401	3,903,000	121	370,000
Plows and listers	79	1,361,578	43,222,000	1,215,979	37,699,000	221,077	7,200,000
Tillage implements	92	.....	22,919,000	.....	20,636,000	.....	1,665,000
Planting machinery	84	472,248	20,097,000	498,853	21,612,000	16,822	1,458,000
Cultivating machinery	61	580,179	15,186,000	589,830	17,296,000	45,863	670,000
Haying machinery	29	411,556	24,703,000	338,112	19,667,000	94,011	6,230,000
Harvesting machinery	53	232,177	41,015,000	168,829	30,626,000	41,334	7,339,000
Machines for preparing crops for market or use	128	196,772	35,612,000	159,918	34,749,000	30,220	3,010,000
Horse-drawn vehicles	85	449,095	42,423,000	430,459	40,929,000	3,810	339,000
Other items	.....	.....	93,544,000	.....	82,429,000	.....	7,495,000
Grand total	583	.....	536,945,000	.....	471,442,000	.....	66,626,000

PLAN OF INVESTIGATION.

A form was sent to every manufacturer of the items of equipment mentioned, on which he was asked to report the number and value of those manufactured during the year 1920, the number of those sold in the United States and the value of domestic sales, and the number of those sold for export and the value of foreign sales. In all, 583 manufacturers furnished reports as requested. Either through inability to furnish the information in the desired form or for other reasons, a few firms failed to respond, but at least 99 per cent of the entire industry is represented in the totals, and for most classes of equipment the information is practically complete.

The basis on which the reports were made is shown by the detailed instructions to manufacturers quoted below:

> In the column headed "Number manufactured" enter the total output of your firm for the year covered by the report, and under "Total value" enter the total value of each class computed on manufacturer's price to wholesaler, jobber, or retailer. Under "Number sold in United States" enter the total number of different items sold in continental United States to wholesalers, jobbers, retailers, etc., during the year covered by the report. Under "Value of domestic sales" enter the value of items sold in the United States during the year, computed on manufacturer's price to the wholesaler, jobber, retailer, etc. Under "Number sold for export" enter the number sold to wholesalers, jobbers, retailers, etc., in foreign countries and any sold to exporting firms in this country. Include here all those sold for use in the insular possessions of the United States, in Canada, Mexico, etc., as well as those sold for use in Europe, etc. Under "Value, foreign sales," enter value of all items sold for export, computed on same basis as "Value, domestic sales."
>
> Parts of implements or machines which may be manufactured but which are sold to other manufacturers for use on their finished products should not be listed. Neither should finished products, purchased from another manufacturer for resale, be included.

The reports of a considerable number of firms covered fiscal years ending in the latter part of 1920, or the early part of 1921. The reports of such firms do not represent exactly their activities for the calendar year 1920, but in every case the report covered an entire year, and it is believed that for all practical purposes the totals may be considered representative of the industry for the calendar year.

GAS TRACTORS.

The Department of Agriculture has collected figures showing the number of gas tractors manufactured, the number sold in the United States, and the number sold for export for every year since 1916. A summary of the activities of the tractor industry for the years 1916 to 1920, inclusive, is given in Table 2.

TABLE 2.—*Gas tractors manufactured and sold, 1916 to 1920.*

Item.	1916	1917	1918	1919	1920
Number manufactured	29,670	62,742	132,697	164,590	203,207
Number sold in the United States	27,819	49,504	96,470	136,162	162,988
Number sold for export		14,854	36,351	19,693	29,143

Estimates from other sources [1] show that approximately the following numbers of tractors were manufactured in the years 1909 to 1915, inclusive:

	Estimated production.
1909	2,000
1910	4,000
1911	7,000
1912	11,000
1913	7,000
1914	10,000
1915	21,000

Table 3 shows in detail the production and sale of gas tractors in 1920.

TABLE 3.—*Gas tractors manufactured and sold in 1920.*

Belt horsepower (maker's rating).	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
8 and less	6	7,678	$2,091,000	6,106	$1,654,000	750	$219,000
9 to 15	8	3,366	2,480,000	2,605	1,909,000	257	194,000
16 to 18	17	107,782	80,505,000	90,024	67,497,000	14,577	10,834,000
19 to 22	17	39,964	39,016,000	29,347	30,192,000	7,884	8,877,000
23 to 26	24	18,073	23,300,000	15,871	21,053,000	2,117	3,421,000
27 to 32	33	19,861	26,451,000	13,687	20,115,000	2,851	4,428,000
33 to 39	10	1,410	3,223,000	1,154	2,683,000	168	409,000
40 to 59	15	3,684	10,366,000	2,975	10,941,000	400	1,760,000
60 and over	13	1,389	6,131,000	1,219	5,852,000	139	708,000
Total	.....	203,207	193,563,000	162,988	161,896,000	29,143	30,850,000

The former investigations of the department revealed the number of gas tractors of different sizes manufactured during the years 1918 and 1919. Table 4 shows this information.

TABLE 4.—*Number of gas tractors of different sizes manufactured in 1918 and 1919.*

Belt horsepower, maker's rating.	1918		1919	
	Number of tractors.	Per cent of total.	Number of tractors.	Per cent of total.
6 and less	.....	.....	3,760	2.28
9, 10, and 12	1,141	0.86	1,991	1.21
16 and 18	20,629	15.54	22,012	13.37
20 and 22	72,238	54.44	94,653	57.51
24, 25, and 26	20,616	15.54	15,546	9.45
27, 28, 30, and 32	6,959	5.24	17,597	10.69
35 and 36	2,212	1.67	2,453	1.49
40, 45, and 50	1,331	1.00	1,954	1.19
60 and over	913	.69	1,624	.99
Not given	6,658	5.02	3,000	1.82
Total	132,697	100.00	164,590	100.00

In 1918 and 1919 a greater number of gas tractors of 20 and 22 belt horsepower than of any other size were manufactured, while in 1920 the greatest number manufactured were in the 16 to 18 belt horse-

[1] See Weekly News Letter of the United States Department of Agriculture, vol. 6, No. 42, May 21, 1919.

power group. This change is due to the fact that one of the largest manufacturers who reported his tractors as being in the 20 to 22 belt horsepower group in former years reported them in the 16 to 18 belt horsepower group in 1920.

STEAM TRACTION ENGINES.

Table 5 shows the number of steam traction engines of all sizes manufactured and sold during the year. No attempt was made to obtain data regarding the different sizes of steam traction engines, and manufacturers were not asked to report concerning stationary and portable steam engines for farm use.

TABLE 5.—*Steam traction engines manufactured and sold in 1920.*

	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value of domestic sales.	Number sold for export.	Value of foreign sales.
Engines	15	1,766	$4,661,000	1,401	$3,903,000	121	$370,000

PLOWS AND LISTERS.

Separate figures are shown in Table 6 for horse-drawn and tractor-drawn moldboard and disk plows. Horse-drawn moldboard plows are subdivided into "right-hand," "left-hand," and "two-way." No three-bottom left-hand horse-drawn moldboard plows were reported and presumably none were manufactured and sold during the year. Neither did any manufacturer report the sale of any left-hand plows for export.

Similarly separate figures are given for horse-drawn and tractor-drawn listers. Two-bottom tractor-drawn listers were the only size reported and presumably no other sizes were manufactured or sold. Under one-bottom horse-drawn listers are included the implements commonly called middle busters, which are widely used in the South. Figures for combined listers and drills are given in Table 8.

Manufacturers were not asked to report the number and value of "plow shapes" and other attachments manufactured for use with plow stocks. Consequently the value of the plow stocks manufactured and sold does not afford an exact measure of the importance of this branch of the plow industry.

TABLE 6.—*Plows and listers manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Right-hand horse-drawn moldboard plows:							
1-horse	45	369,759	$2,524,000	297,471	$2,002,000	81,442	$606,000
Walking, 2-horse and larger	56	330,121	5,478,000	284,326	4,709,000	77,803	1,377,000
1-bottom, sulky	23	51,310	3,182,000	55,067	3,403,000	6,176	399,000
2-bottom	21	48,366	4,572,000	39,807	3,803,000	15,547	1,379,000
3-bottom and larger	10	2,437	335,000	2,021	278,000	359	48,000
Total	.....	801,993	16,091,000	678,692	14,195,000	181,327	3,809,000
Left hand horse-drawn moldboard plows:							
1-horse	5	1,220	8,000	1,182	8,000	.....	.....
Walking, 2-horse and larger	25	16,210	229,000	18,099	254,000	.....	.....
1-bottom, sulky	7	601	27,000	2,836	166,000	.....	.....
2-bottom	4	235	18,000	267	22,000	.....	.....
3-bottom and larger	.....	.....	.....	.....	.....	.....	.....
Total	.....	18,266	282,000	22,384	450,000	.....	.....
2-way moldboard plows:							
Walking	13	41,127	414,000	21,472	212,000	12,965	123,000
Sulky	13	5,694	470,000	5,229	439,000	69	6,000
Total	.....	46,821	884,000	26,701	651,000	13,034	129,000
Horse-drawn disk plows:							
Single-disk	10	2,927	143,000	1,496	83,000	123	8,000
2-disk	10	11,112	911,000	9,485	795,000	969	83,000
3-disk and larger	9	2,392	258,000	1,962	214,000	282	30,000
Total	.....	16,431	1,312,000	12,943	1,092,000	1,374	121,000
Tractor moldboard plows:							
1-bottom	8	4,569	405,000	3,297	295,000	600	60,000
2-bottom	14	87,059	8,908,000	75,527	7,811,000	9,382	992,000
3-bottom	17	44,509	7,211,000	38,056	6,396,000	9,172	1,237,000
4-bottom	10	7,190	1,666,000	4,897	1,158,000	1,053	254,000
5-bottom and larger	7	215	105,000	251	137,000	50	27,000
Total	.....	143,542	18,295,000	122,028	15,797,000	20,257	2,570,000
Tractor disk plows:							
2-disk	9	12,327	1,626,000	10,116	1,321,000	1,299	183,000
3-disk	11	8,982	1,394,000	6,972	1,070,000	1,139	181,000
4-disk	10	5,806	1,040,000	4,575	819,000	514	111,000
5-disk and larger	8	1,201	279,000	964	247,000	198	84,000
Total	.....	28,316	4,339,000	22,627	3,457,000	3,150	559,000
Horse-drawn listers:							
1-bottom	21	35,551	869,000	37,190	1,005,000	359	7,000
2-bottom	6	3,232	343,000	2,501	269,000	.....	.....
Total	.....	38,783	1,212,000	39,691	1,274,000	359	7,000
Tractor-drawn listers, 2-bottom	7	3,305	314,000	2,219	210,000	.....	.....
Plow stocks	12	264,121	493,000	288,694	573,000	1,576	5,000
Total	.....	.....	43,222,000	.....	37,699,000	.....	7,200,000

TILLAGE IMPLEMENTS.

Table 7 shows the number and value of tillage implements of various kinds manufactured and sold. It has been impossible to determine the total number of complete tillage implements because some large manufacturers of spike-tooth and spring-tooth harrows were able to report only the number of sections manufactured and sold.

Under "Other harrows" are included all special and patented harrows which are not commonly classified as either spike-tooth, spring-tooth, or disk. "Other tillage machines" include orchard cultivators, quack grass diggers, and tillage machines other than harrows manufactured for special purposes. Corrugated rollers and packers are included under "Soil pulverizers."

TABLE 7.—*Tillage implements manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Harrows:							
1-horse spike and spring-tooth	23	68,782	$447,000	69,500	$453,000	2,133	$21,000
Spike-tooth, 2-horse and larger, complete	33	87,121	1,653,000	80,878	1,562,000	4,582	78,000
Spike-tooth sections	4	169,529	1,796,000	169,425	1,621,000	13,961	131,000
Spring-tooth, 2-horse and larger, complete	16	24,610	523,000	25,008	542,000	766	20,000
Spring-tooth sections	2	92,601	1,473,000	48,416	821,000	27,224	363,000
Horse-drawn disk	32	164,586	7,159,000	151,198	6,646,000	11,894	582,000
Tractor-drawn disk	27	67,095	6,820,000	59,715	5,955,000	3,589	377,000
Other harrows	13	12,860	218,000	11,925	220,000	28	1,000
Weeders	14	6,962	95,000	7,234	98,000	.....	.....
Smooth land rollers	15	1,715	66,000	1,779	70,000	.....	.....
Soil pulverizers	21	31,085	1,962,000	30,801	1,918,000	927	64,000
Other tillage machines	16	11,110	707,000	10,415	730,000	431	28,000
Total	.....	.....	22,919,000	.....	20,636,000	.....	1,665,000

PLANTING MACHINERY.

In addition to the implements listed in Table 8, manufacturers were asked for information concerning hand potato planters and hand transplanters, but the reports on these items were incomplete and no figures for them are included in the table.

The form did not call for information concerning hand drills and planters for use in gardens and on small truck farms. Several manufacturers volunteered information concerning such implements, but manufacturers of such implements did not all give similar information. Consequently the figures obtained were incomplete and are not included.

TABLE 8.—*Planting machinery manufactured and sold, 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Corn planters:							
Hand	6	33,780	$53,000	34,583	$54,000	365	$1,000
1-row	20	31,602	521,000	31,127	514,000	581	10,000
2-row	24	59,627	3,474,000	66,475	3,866,000	1,207	74,000
Total	.....	125,009	4,048,000	132,185	4,434,000	2,153	85,000
Cotton planters, 1-row	20	35,056	393,000	37,917	434,000	.....	.....

TABLE 8.—*Planting machinery manufactured and sold, 1920*—Continued.

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Combination corn and cotton planters:							
1-row	24	90,732	$1,647,000	97,908	$1,844,000	1,436	$26,000
2-row	8	2,854	174,000	3,773	215,000	1,246	70,000
Total	.....	93,586	1,821,000	101,681	2,059,000	2,682	96,000
Combined listers and drills:							
1-row	8	7,607	473,000	11,858	757,000	.....	.....
2-row	5	1,332	189,000	1,312	170,000	29	4,000
Total	.....	8,939	662,000	13,170	927,000	29	4,000
Potato planters, horse-drawn	14	8,471	667,000	8,367	678,000	107	8,000
Grain drills:							
Horse	21	100,637	10,973,000	107,182	11,647,000	9,734	1,184,000
Tractor	7	3,406	431,000	3,168	400,000	163	22,000
Total	.....	104,043	11,404,000	110,350	12,047,000	9,897	1,206,000
Broadcast seeders:							
Wheel (horse-drawn)	10	6,783	357,000	6,163	311,000	636	42,000
End-gate	5	14,961	246,000	14,928	246,000	.....	.....
Hand (wheelbarrow and other)	7	69,239	78,000	68,280	77,000	1,080	1,000
Total	.....	90,983	681,000	89,371	634,000	1,716	43,000
Beet drills, horse-drawn	4	1,357	103,000	1,386	104,000	8	1,000
Transplanters, horse-drawn	6	4,804	318,000	4,426	295,000	230	15,000
Total	.....	472,248	20,097,000	498,853	21,612,000	16,822	1,458,000

CULTIVATING MACHINERY.

Manufacturers were asked for separate figures on one-row and two-row motor cultivators, but on account of the small number of one-row machines reported the two sizes are combined in Table 9.

Shovel plows and similar implements used primarily for cultivating row crops are included under "one-horse cultivators." The "other cultivators" listed are all horse-drawn implements for use on row crops. Several firms reported hand cultivators and garden tools, but the information was incomplete and no figures for these implements are included in the table.

TABLE 9.—*Cultivating machinery manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Cultivators (row crops):							
Motor	7	1,120	$911,000	865	$706,000	20	$21,000
Horse-drawn (straddle row)—							
1-row, walking	30	57,379	1,793,000	62,329	1,984,000	765	23,000
1-row, riding	32	121,637	5,645,000	152,644	7,170,000	787	39,000
2-row	23	74,827	4,272,000	90,427	5,153,000	2,444	150,000
1-horse	30	316,312	1,950,000	273,576	1,616,000	40,785	344,000
Beet cultivators	12	4,430	283,000	5,336	343,000	157	11,000
Other cultivators	6	4,474	332,000	4,653	324,000	905	82,000
Total	.....	580,179	15,186,000	589,830	17,296,000	45,863	670,000

HAYING MACHINERY.

The number and the value of haying machines manufactured and sold are shown in Table 10. The items concerning which manufacturers were asked for information are exactly the same as those included in the table. So far as known, every manufacturer of this class of machines furnished a complete report concerning them.

TABLE 10.—*Haying machinery manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Mowers	12	239,165	$15,393,000	172,654	$10,725,000	68,229	$4,856,000
Sulky rakes	15	84,495	3,107,000	77,622	2,727,000	19,695	906,000
Side-delivery rakes	11	15,195	1,127,000	16,658	1,270,000	414	33,000
Sweep rakes	12	22,964	819,000	24,078	859,000	865	40,000
Tedders	10	5,992	347,000	4,803	281,000	1,981	107,000
Loaders	13	33,337	3,050,000	32,399	2,988,000	2,509	257,000
Stackers	11	10,129	825,000	9,628	783,000	318	31,000
Combined sweep rakes and stackers	2	279	35,000	270	34,000	.....	.....
Total	.....	411,556	24,703,000	338,112	19,667,000	94,011	6,230,000

HARVESTING MACHINERY.

The number and the value of the machines manufactured and sold for harvesting small grain, corn, rice, potatoes, beans, and sugar beets are given in Table 11. The self-rake reaper is the only machine covered in the entire investigation of which a greater number were sold for export than were sold in the United States.

TABLE 11.—*Harvesting machinery manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Grain binders	8	139,372	$24,593,000	99,546	$17,387,000	25,122	$4,713,000
Grain headers	3	4,725	1,295,000	3,071	832,000	945	283,000
Combined harvesters and threshers:							
Width of cut, 10 feet and less	3	3,286	3,039,000	2,382	2,118,000	923	939,000
Width of cut, over 10 feet	2	341	1,214,000	335	1,471,000	6	27,000
Rice binders	3	2,135	446,000	3,662	749,000	42	9,000
Corn binders (row)	6	40,793	6,690,000	32,559	5,431,000	833	159,000
Self-rake reapers	5	14,949	1,170,000	1,708	147,000	12,377	1,143,000
Corn pickers and huskers (field)	3	2,882	1,068,000	2,939	1,071,000	.....	.....
Potato-digging machines (elevator type)	15	11,718	1,090,000	10,463	1,011,000	657	52,000
Potato diggers (plow type)	17	6,452	93,000	6,781	105,000	228	5,000
Bean harvesters	12	498	31,000	490	30,000	.....	.....
Beet lifters	10	5,026	286,000	4,893	274,000	201	9,000
Total	.....	232,177	41,015,000	168,829	30,626,000	41,334	7,339,000

MACHINES FOR PREPARING CROPS FOR MARKET OR USE.

In Table 12, grain and rice threshers are divided into two classes according to size, namely, those with width of rear 46 inches and

under and those with width of rear 47 inches and over. Those with a width of rear of 46 inches and under are commonly considered as machines for individual farmers or for small groups of farmers, while all larger sizes are considered to be custom machines primarily.

Information concerning peanut threshers was requested, but the returns on this item were incomplete and the figures are omitted from the table.

The figures on spring corn shellers include all sizes from two to eight hole. Several firms furnished figures for hand shellers, but since information on these machines was not requested on the form, the returns were incomplete.

Under "Feed grinders and crushers" and "Grain cleaners and graders" only machines manufactured and sold for farm use are included.

TABLE 12.—*Machines for preparing crops for market or use, manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Grain threshers (wood):							
Width of rear—							
46 inches and under	30	9,639	$8,241,000	9,603	$9,154,000	816	$892,000
47 inches and over	20	3,948	4,560,000	3,197	4,345,000	206	327,000
Grain threshers (steel):							
Width of rear—							
46 inches and under	6	7,260	4,680,000	6,937	4,562,000	724	520,000
47 inches and over	6	1,312	1,578,000	1,016	1,270,000	215	245,000
Rice threshers:							
Width of rear—							
46 inches and under	8	284	248,000	360	340,000	6	3,000
47 inches and over	7	226	253,000	236	354,000	.....	.....
Pea and bean threshers	9	216	156,000	211	147,000	4	5,000
Clover hullers	3	690	910,000	767	1,081,000	102	133,000
Ensilage cutters	29	27,004	4,852,000	23,896	4,432,000	1,085	194,000
Corn shellers (power):							
Spring	15	6,379	1,133,000	5,549	938,000	125	31,000
Cylinder	7	850	511,000	957	580,000	25	7,000
Corn huskers and shredders	10	4,953	2,116,000	5,101	2,241,000	22	11,000
Hay presses:							
Horse	16	2,225	781,000	2,795	652,000	483	149,000
Engine	17	5,247	2,539,000	4,251	2,043,000	329	165,000
Feed grinders and crushers:							
Hand	15	44,797	226,000	23,535	134,000	20,346	78,000
Power	37	61,977	2,244,000	52,314	1,916,000	4,570	193,000
Grain cleaners and graders [1]	16	19,765	584,000	19,193	560,000	1,162	57,000
Total	.....	.....	35,612,000	.....	34,749,000	.....	3,010,000

[1] Seed corn graders not included.

HORSE-DRAWN VEHICLES.

The two wagon manufacturers whose activities are shown under "Sizes not specified" in Table 13 stated that they were unable to furnish more detailed figures. Two large manufacturers of wagons whose combined output was probably not far from 5 per cent of the total of the firms whose reports are included in the table failed to respond to repeated requests for information.

TABLE 13.—*Horse-drawn vehicles manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Farm wagons:							
1-horse	45	32,934	$2,076,000	31,165	$1,971,000	122	$13,000
Light 2-horse, 3,500 pounds gross loaded weight	48	49,498	5,413,000	46,571	5,144,000	32	5,000
Medium 2-horse, 4,500 pounds gross loaded weight	48	72,399	8,325,000	68,439	7,850,000	43	6,000
Standard 2-horse, 6,800 pounds gross loaded weight	35	50,926	6,457,000	48,380	6,123,000	67	11,000
Heavy 2-horse, 7,500 pounds gross loaded weight	32	9,666	1,384,000	9,317	1,322,000	213	41,000
Sizes not specified	2	11,800	1,140,000	11,800	1,140,000	.....	.....
Horse-drawn farm trucks:							
With wood wheels	34	47,238	3,280,000	44,757	3,136,000	725	50,000
With metal wheels	27	36,856	1,617,000	34,607	1,509,000	471	27,000
Light spring vehicles	15	5,532	477,000	3,409	295,000	2,137	186,000
Buggies	21	132,246	12,254,000	132,014	12,439,000	.....	.....
Total	.....	449,095	42,423,000	430,459	40,929,000	3,810	339,000

MISCELLANEOUS ITEMS.

The number and the value of several important miscellaneo u items of equipment manufactured and sold in 1920 are shown in Table 14.

TABLE 14.—*Other selected items of equipment manufactured and sold in 1920.*

Kind.	Number of firms.	Number manufactured.	Total value.	Number sold in United States.	Value, domestic sales.	Number sold for export.	Value, foreign sales.
Cane mills	6	11,923	$780,000	7,539	$477,000	1,879	$161,000
Cream separators, centrifugal	20	222,587	15,501,000	169,057	11,232,000	27,954	2,170,000
Farm elevators, portable	12	7,703	1,776,000	7,423	1,881,000	69	16,000
Farm elevators, stationary	13	3,052	934,000	2,910	901,000	8	2,000
Feed and litter carriers	22	15,093	682,000	14,274	658,000	75	3,000
Fertilizer distributors (horse-drawn)	18	48,540	453,000	51,236	475,000	.....	.....
Gasoline and kerosene engines (stationary and portable)	35	268,287	25,693,000	216,144	20,619,000	22,059	2,561,000
Lime spreaders	11	9,153	325,000	9,093	321,000	83	5,000
Manure spreaders	24	103,036	14,744,000	104,444	16,171,000	1,120	185,000
Milking machines	11	29,555	2,962,000	28,130	2,867,000	921	105,000
Portable corn cribs	5	4,502	731,000	4,186	685,000	.....	.....
Portable grain bins	6	6,137	1,206,000	6,137	1,206,000	.....	.....
Pumps	24	500,690	5,087,000	445,269	4,529,000	27,177	384,000
Pump jacks	30	84,948	877,000	86,198	873,000	2,349	37,000
Seed-potato cutters	4	1,442	14,000	1,418	14,000	.....	.....
Silos	38	24,052	9,492,000	23,637	9,634,000	24	18,000
Spraying machines (power or traction)	21	11,000	2,488,000	10,715	2,444,000	228	47,000
Stalk cutters	19	24,064	1,098,000	22,455	1,031,000	43	4,000
Stump pullers:							
Hand	3	3,216	310,000	2,113	201,000	1,008	105,000
Horse or engine	6	1,646	308,000	775	223,000	241	32,000
Sirup evaporators	6	11,355	275,000	9,114	242,000	233	4,000
Windmills	22	75,736	5,443,000	57,108	3,501,000	17,464	1,653,000
Wood-sawing machines:							
Circular	33	29,084	732,000	29,195	738,000	36	1,000
Drag	9	11,482	1,633,000	10,427	1,506,000	13	2,000
Total	.....	.....	93,544,000	.....	82,429,000	.....	7,495,000

Firms which manufacture gasoline and kerosene engines of all types were asked to report only those which were made for farm trade.

Two large manufacturers of pumps for agricultural purposes failed to respond to the request for a report of their activities.

The figures on silos can not be taken to represent the entire number of silos sold to farmers during the year. A considerable number were doubtless built locally or sold by small concerns which were not asked for reports.

An effort was made to obtain data on hand spraying machines, but a great number evidently not used for agricultural purposes were reported, and consequently the figures have been omitted. Dusting machines, as well as those for spraying liquids, are included under "Spraying machines (power or traction)."

A considerable number of firms furnished figures concerning items of equipment not requested, but as the manufacturers of such equipment did not all furnish similar data the figures were necessarily incomplete and are not included in any of the tables.

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